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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,230

03/18/2005

Takashi Tanahashi

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7590

08/11/2006

SMITH, GAMBRELL & RUSSELL
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EXAMINER

GRAVINI, STEPHEN MICHAEL

ART UNIT

PAPER NUMBER

3749

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/528,230

Applicant(s)

TANAHASHI ET AL.

Examiner

Stephen Gravini

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20060427 et al.</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Weil et al. (US 3,470,708). Weil is considered to disclose the claimed invention comprising:

a processing unit **10** adapted to perform a predetermined process to a process object;

a transfer space **30** in which a process object to be processed by the processing unit or a process object having been processed by the processing unit is conveyed; and

a dry air **24** supplying apparatus adapted to supply air, from which moisture and organic matters are removed, into the transfer space; said dry air supplying apparatus including:

two rotors **16** & **18** respectively supported by support frames, each of the rotors having a component member carrying an absorbent;

partitioning members respectively supported by the support frames, each of the partitioning members defining at least an absorbing zone and a recovery zone in the rotor corresponding to the partitioning member, depending on an angular positional relationship between the rotor and the corresponding partitioning member, wherein, in the absorbing zone, moisture and organic matters are removed from air passing therethrough by the absorbent in the absorbing zone, and in the recovery zone, the absorbent deteriorated due to absorption of the moisture and the organic matters is recovered as discussed in column 3 lines 6 through 38;

a common drive means for driving both the rotors for rotation as shown in figures 1-3;

a circulation space so as to passage that guides air sucked from a target sequentially pass through the absorbing zones of the rotors for removing moisture and organic matters from the air, and thereafter return to the target space also as shown in figures 1-3; and

an exhaust passage **152**, provided with heating means, that guides a part of the air having passed through the absorbing zones of the rotors so as to pass through the heating means, and thereafter pass through the recovery zones of the rotors for desorbing the moisture and the organic matters from the absorbents of the rotors. Weil is also considered to disclose the claimed cooling means **156** arranged in the circulation passage between a former-stage rotor and a latter-stage rotor of said two rotors, for cooling air having passed through the absorbing zone of the former-stage rotor, the partitioning member corresponding to the latter-stage rotor is configured to define, in the

Art Unit: 3749

latter-stage rotor, a cooling zone in which the component member carrying the absorbent is cooled, in addition to the absorbing zone and the recovery zone as discussed in column 3 line 5 through column 6 line 38, and the exhaust passage is configured to guide air, having passed through the former-stage rotor, the cooling means and the latter-stage rotor, to pass through the cooling zone of the latter-stage rotor before the air passes through the recovery zones of the former-stage rotor and latter-stage rotor and the heating means as shown in figures 1-3 along with a circumferential element of each of the partitioning members is provided with a circumferential packing member to be pressed against a peripheral edge or an outer circumference of the rotor facing the circumferential element, and a slip sheet is adhered to a contact surface of the packing member facing the rotor corresponding to the packing member as discussed in column 2 lines 55-67.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weil in view of Boles et al. (US 6,016,710). Weil is considered to disclose the claimed invention, as rejected above, except for the claimed dew point controller. Boles, another dry air supplying apparatus, is considered to disclose a dew point controller at column 6 line 27 through column 7 line 38. It would have been obvious to one skilled in the art to combine the teachings of Weil with the dew point controller, considered disclosed in Boles, for the purpose of precisely measuring and controlling moisture in a drying system. Furthermore, Weil in view of Boles is considered to disclose the claimed invention, except for the claimed sealing member shape. It would have been an obvious matter of design choice to provide a specific shape for a sealing member, since the teachings of Weil in view of Boles would perform the claimed invention, regardless of the shape.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weil in view of Rush et al. (US 3,889,742). Weil is considered to disclose the claimed invention, as rejected above, except for the claimed intermittent rotor rotation for a partitioning member configuration. Rush, another dry air supplying apparatus, is considered to disclose an intermittent rotor rotation for a partitioning member configuration at column 3 lines 49 through 60. It would have been obvious to one skilled in the art to combine the teachings of Weil with the intermittent rotor rotation for a partitioning member configuration, considered disclosed in Rush, for the purpose of allowing differing drying rates depending on air flow circulation.

Allowable Subject Matter

Claims 4-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571 272 4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SMG
August 1, 2006

Stephen Gravini